AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS

1. (Currently amended) A compensation apparatus for prevention of damaging bearing currents in an electrical machine ~~(DM)~~ having at least one winding, a housing and a rotor, said apparatus comprising:

[[-]] a connection device ~~for connection~~ adapted to connect to at least one winding ~~(MW)~~, to the housing and to the rotor ~~(RO)~~ of the electrical machine; ~~(DM),~~ and

[[-]] a voltage production device ~~for production of~~ adapted to produce a compensation voltage ~~(U_k)~~ for the rotor ~~(RO)~~ of the electrical machine as a function of ~~the~~ an operating voltage ~~(U_d)~~ which is applied to the at least one winding ~~(MW),~~ of the electrical machine.

2. (Currently amended) The compensation apparatus ~~as claimed in~~ of claim 1, ~~in which the~~ wherein the operating voltage ~~which is~~ applied to the winding ~~(MW)~~ is obtained from ~~the~~ drive signals of a voltage intermediate-circuit converter ~~(UR)~~ of the electrical machine.

3. (Currently amended) The compensation apparatus ~~as claimed in~~ of claim 1 ~~or 2~~, further comprising ~~in which the voltage production device has~~ a transformer in the voltage production device, ~~(T) whose~~ said transformer having a primary winding ~~is~~ connected between the at least one winding ~~(MW)~~ and the housing of the electrical machine ~~(DM)~~, and ~~whose~~ having a secondary winding ~~is~~ connected between the rotor ~~(RO)~~ and the housing of the electrical machine ~~(DM)~~.

4. (Currently amended) The compensation apparatus ~~as claimed in~~ of claim 3, ~~in which~~ further comprising a network ~~(Z_{T1}, Z_{T2})~~ for adaptation of the compensation voltage, said network being ~~is~~ connected in parallel with the primary winding ~~or secondary winding~~.

5. (Currently amended) The compensation apparatus ~~as claimed in~~ of claim 3 ~~one of the preceding claims~~, ~~in which~~ wherein the voltage production device has an active circuit ~~(AS), by means of which the~~ to produce the compensation voltage ~~(U_k) can be produced~~ from the operating voltage ~~(U_d) which is~~ applied to the electrical machine.

6. (Currently amended) The compensation apparatus ~~as claimed in one of the preceding claims, which has~~ of claim 1, further comprising a star circuit adapted to connect ~~by means of which the~~ phases of the electrical machine ~~are connected~~ at a star point~~; (SP),~~ and ~~in which the~~ a star point voltage ~~(U_o)~~ at the star point, said star point being connected to provide the star point voltage ~~(SP) is used~~ as an input voltage for the voltage production device.

7. (Currently amended) An electrical machine having a compensation apparatus ~~as claimed in one of claims 1 to 6~~ for prevention of damaging bearing currents in an electrical machine, said compensation apparatus comprising:

a connection device adapted to connect to at least one winding, to the housing and to the rotor of the electrical machine; and

a voltage production device adapted to produce a compensation voltage for the rotor of the electrical machine as a function of an operating voltage applied to the at least one winding of the electrical machine.

8. (Currently amended) The electrical machine ~~as claimed in~~ of claim 7, ~~which is~~ constructed as a three-phase electrical machine.

9. (Currently amended) The electrical machine ~~as claimed in~~ of claim 7 ~~or 8~~, further comprising a star circuit adapted to connect ~~in which~~ the ~~windings (MW)~~ winding of the electrical machine ~~(DM) are connected~~ at a star point~~; (SP),~~ and ~~the~~ a star point voltage ~~(U_e)~~ at the star point, said star point being connected to provide the star point voltage ~~(SP) is used~~ as an input voltage for the voltage production device.

10. (Currently amended) A method for ~~compensation for~~ compensating bearing currents in an electrical machine ~~(DM) by~~ , comprising the steps of:

[[-]] ~~production of~~ producing a compensation voltage ~~(U_k)~~ for ~~the~~ a rotor ~~(RO)~~ of the electrical machine ~~(DM)~~ as a function of an operating voltage ~~(U_d)~~ of the electrical machine, and

[[-]] ~~application of~~ applying the compensation voltage ~~(U_k)~~ to the rotor ~~(RO)~~ of the electrical machine.

11. (Currently amended) The method ~~as claimed in~~ of claim 10, ~~in which~~ wherein the compensation voltage ~~(U_k)~~ is produced by a transformer ~~(T)~~ which transforms ~~the~~ a primary voltage [[(which is]] applied to at least one ~~of the windings (MW)~~ winding of the electrical machine ~~(DM)~~ for the compensation voltage ~~(U_k)~~.

12. (Currently amended) The method ~~as claimed in~~ of claim 10, ~~in which~~ wherein the compensation voltage ~~(U_k)~~ is produced by an active circuit ~~(AS)~~.

13. (Currently amended) The method ~~as claimed in one~~ of ~~claims~~ claim 10 ~~to 12~~, ~~in which~~ wherein the operating voltage ~~(U_d)~~ of the electrical machine is a common-mode voltage.

14. (Currently amended) The method ~~as claimed in one~~ of ~~claims~~ claim 10 ~~to 13~~, ~~in which~~ wherein the electrical machine is operated with three phases.

15. (Currently amended) The method ~~as claimed in~~ of claim 14, ~~in which~~ wherein ~~the~~ windings ~~(MW)~~ of the electrical machine ~~(DM)~~ are interconnected at a star point ~~(SP, SP')~~, and the voltage at the star point ~~(SP, SP')~~ is used to produce the compensation voltage ~~(U_k)~~.

16. (Currently amended) A compensation apparatus for prevention of damaging bearing currents ~~having~~, comprising:

[[-]] a first connection ~~for connection~~ adapted to be connected to ~~the~~ a rotor ~~(RO)~~ of an electrical machine; ~~(DM),~~

[[-]] a second connection ~~for connection~~ adapted to be connected to ~~the~~ a housing ~~or a potential of a voltage intermediate circuit converter (UR)~~ of the electrical machine; ~~(DM),~~ and

[[-]] an impedance ~~with~~ having a DC resistance and a high frequency reactance which is less than ~~this~~ said DC resistance, ~~which impedance is~~ said impedance being connected between the first connection and the second connection.

17. (Currently amended) An electrical machine having a compensation apparatus for prevention of damaging bearing currents in an electrical machine ~~as claimed in one of claim 16~~, said compensation apparatus comprising:

[[-]] a first connection adapted to be connected to a rotor of the electrical machine;

[[-]] a second connection adapted to be connected to a housing of the electrical machine; and

[[-]] an impedance having a DC resistance and a high frequency reactance which is less than the DC resistance, said impedance being connected between the first connection and the second connection.

18. (New) The compensation apparatus of claim 3, further comprising a network, connected in parallel with the secondary winding, for adaptation of the compensation voltage.

19. (New) The electrical machine of claim 7, wherein the operating voltage applied to the winding is obtained from drive signals of a voltage intermediate-circuit converter of the electrical machine.

20. (New) The electrical machine of claim 7, wherein the compensation apparatus includes a transformer in the voltage production device, said transformer having a primary winding connected between the at least one winding and the housing of the electrical machine, and having a secondary winding connected between the rotor and the housing of the electrical machine.

21. (New) The electrical machine of claim 20, wherein the compensation apparatus includes a network, connected in parallel with the primary winding, for adaptation of the compensation voltage.

22. (New) The electrical machine of claim 20, wherein the compensation apparatus includes a network, connected in parallel with the secondary winding, for adaptation of said compensation voltage.

23. (New) The electrical machine of claim 7, wherein the compensation apparatus includes an active circuit in the voltage production device, said active circuit being adapted to produce the compensation voltage from the operating voltage applied to the electrical machine.

24. (New) The electrical machine of claim 7, wherein the compensation apparatus includes a star circuit adapted to connect phases of the electrical machine at a star point, and a star point voltage at the star point, said star point being connected to provide the star point voltage as an input voltage for the voltage production device.

25. (New) A compensation apparatus for prevention of damaging bearing currents in an electrical machine, comprising:

a first connection adapted to be connected to a rotor of an electrical machine;

a second connection adapted to be connected to a potential of a voltage intermediate-circuit converter of the electrical machine; and

an impedance having a DC resistance and a high frequency reactance that is less than said DC resistance, said impedance being connected between said first connection and said second connection.

26. (New) An electrical machine having a compensation apparatus for prevention of damaging bearing currents in an electrical machine, said compensation apparatus comprising:

a first connection adapted to be connected to a rotor of the electrical machine;

a second connection adapted to be connected to a potential of a voltage intermediate-circuit converter of the electrical machine; and

an impedance having a DC resistance and a high frequency reactance that is less than said DC resistance, said impedance being connected between said first connection and said second connection.